

REMARKS

The office action of September 25, 2007 has been reviewed and its contents carefully noted. Reconsideration of this case, as amended, is requested. Claims 1 through 19 remain in this case, claims 1 through 14 being amended and claims 15-19 being added by the present response. No new matter has been introduced by these amendments. Specifically:

In claim 1, "time tags" is supported by page 7, lines 18-20, page 8, line 6-7, and page 9, lines 26-28 of the application as filed.

In claims 1 and 7:

"testing system" is supported by page 5, lines 15-16 of the application as filed.

"an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor" is supported by page 4, lines 7-10 of the application as filed, and

"serial digital communication messages between the subsystems" is supported by page 8, lines 29-31 of the application as filed.

New claim 15 is supported by claim 1 of the application as filed.

New claim 16 is supported by page 3, lines 14-16 of the application as filed.

New claim 17 is supported by page 4, lines 2-4 of the application as filed.

New claim 18 is supported by Fig. 3 of the application as filed.

New claim 19 is supported by page 8, lines 18-20 of the application as filed.

A petition to revive this application is being filed concurrently with this response.

The numbered paragraphs below correspond to the numbered paragraphs in the Office Action.

Preliminary Comments

The Examiner's primary reference (Laird *et al.*, U.S. Patent No. 6,647,361) discloses a device and process that performs a specific function: enforcement of red light violation by vehicles. The Applicant's claimed system is a general purpose test and audit tool. The Applicant's claimed system collects multiple data elements (video, digital, and serial) and presents them to the user in a fashion that allows the user to visually observe and correlate the different data elements in relation to each other. The Applicant's claimed system preferably does not include business rules that make the system specific to a particular application.

The Applicant has worked in the tolling industry for many years and is very familiar with violation enforcement using video cameras. The Applicant has worked with numerous devices that are similar to the Laird invention. The Applicant's claimed system is not a copy or potential replacement for the Laird system. Instead the Applicant's claimed system is preferably installed, often on a temporary basis, to monitor and record the inputs and outputs of the device being tested, such as the Laird device, to allow a detailed study of its operation and allow troubleshooting of problems. The Applicant's claimed system is commonly used during the test and acceptance phase of projects that develop devices similar to the Laird system. The fact that the Applicant's claimed system preferably accommodates the signals and messages that other systems use does not make it obvious in view of those systems.

Unique aspects of the Applicant's claimed system include, but are not limited to, its portability, its ability to be quickly reconfigured to new signals and messages, and its ability to present data that has proven good at providing both detailed information to technical users and an intuitive display of complex interactions to a less technical audience.

Rejection under 35 U.S.C. §102

3. Claims 1, 3-7, and 9-14 were rejected under 35 U.S.C. 102(b) as being anticipated by Laird *et al.* (U.S. Patent No. 6,647,361). Applicant respectfully disagrees with the rejection.

Claim 1 includes, in part, a “testing system for collecting, storing, and reviewing digital data, serial data, and video data related to events occurring in an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor under the direction of the automated controller, the testing system comprising ... a multi-port serial port expansion card for sensing and collecting serial digital communication messages between the subsystems as serial data” [emphasis added].

The Examiner points to Figs. 28, 29, and 32 of Laird as disclosing a digital signal capture card for collecting digital data and a multi-port serial port expansion card for collecting serial data.

Laird discloses a system for filtering non-violation events in a traffic light prediction and recording system. The violation enforcement system disclosed by Laird collects video and digital data and performs a specific task: detection of traffic-light violations and capture of images of the violating vehicles. The system of Laird uses video data to derive information about the vehicle position, velocity, and acceleration. The system of Laird uses the digital data to determine the phase of the traffic signal and applies application-specific software or “business rules” to perform the tasks for violation detection, recording, and presentation of data to the user. Laird discloses taking the violation process beyond the recording and playback devices and offers a proposed template for a hardcopy violation notice to be sent to the violating driver. Laird discloses a system that, on a superficial level, collects video and discrete digital data (such as the current light phase via the traffic control box) of a traffic light system but does not include the collection of serial communication messages within the traffic light system. Laird is concerned with the behavior of vehicles in response to the traffic light system. Laird is not concerned with the functioning of the traffic light system and does not disclose collecting serial communication messages within the traffic light system.

In contrast, the invention of claim 1 is a testing system for collecting, storing, and reviewing digital data, serial data, and video data related to events occurring in an automated system. The system of claim 1 includes a multi-port serial port expansion card for sensing and collecting serial digital communication messages between the subsystems as serial data.

Fig. 28 of Laird discloses vehicle data that may be collected from video data. Fig. 29 of Laird discloses further vehicle data as well as data regarding the light phase of the traffic light system. Fig. 32 of Laird discloses multiple video images on a single display along with some data including a time after a red phase of the light started. None of these three figures, or their detailed descriptions, disclose the recording or display of serial data as defined by the Applicant.

Laird does not disclose each and every element of Applicant's independent claim 1. Therefore, it is respectfully suggested that the rejection of independent claim 1 as being anticipated by Laird is overcome. Dependent claims 3-6 and 13-14, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations they contain. Reconsideration and withdrawal of the rejection of claims 1, 3-6, and 13-14 are respectfully requested.

Claim 7 includes, in part, "A testing system for collecting, storing, and reviewing digital data, serial data, and video data related to events occurring in an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor under the direction of the automated controller, the testing system comprising a display for displaying said data and operatively connected to ... means for sensing and collecting serial digital communication messages between the subsystems as serial data [and] means for indexing and storing said serial data" [emphasis added].

As discussed above with regard to claim 1, Laird does not disclose collecting serial communication messages within the traffic light system. Laird does not disclose means for sensing and collecting serial digital communication messages between subsystems.

Laird does not disclose each and every element of Applicant's independent claim 7. Therefore, it is respectfully suggested that the rejection of independent claim 7 as being anticipated by Laird is overcome. Dependent claims 9-12, being dependent upon and further limiting independent claim 7, should also be allowable for that reason, as well as for the additional recitations they contain. Reconsideration and withdrawal of the rejection of claims 7 and 9-12 are respectfully requested.

To further prosecution of the present application, the Applicant is also presenting arguments that new independent claim 15 is not anticipated by Laird *et al.*

Claim 15 includes, in part, a “method of testing and evaluating an automated system comprising a plurality of subsystems comprising an automated controller and at least one peripheral sensor, the method comprising ... recording serial digital communication messages between the subsystems as serial data” [emphasis added].

As discussed above with regard to claim 1, Laird does not disclose collecting serial communication messages within the traffic light system. Laird does not disclose sensing and collecting serial digital communication messages between subsystems as serial data.

Laird does not disclose each and every element of Applicant's claim 15. Therefore, it is respectfully suggested that independent claim 15 is not anticipated by Laird. Dependent claims 16-19, being dependent upon and further limiting independent claim 15, should also be allowable for that reason, as well as for the additional recitations they contain.

Rejection under 35 U.S.C. §103

5. Claims 2 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Laird *et al.* in view of Auty *et al.* (U.S. Patent No. 5,809,161). Applicant respectfully disagrees with the rejection. The argument regarding the novelty of claims 1 and 7, upon which claims 2 and 8 depend, respectively, over Laird is incorporated herein by reference.

Regarding claim 1, Auty does not provide what Laird lacks. Auty teaches an object monitoring system including a camera to monitor moving objects and image processing circuitry to detect a predetermined moving object from other moving and static objects in the video. Auty does not teach or suggest a multi-port serial port expansion card for sensing and collecting serial digital communication messages between the subsystems as serial data.

Therefore, it is respectfully suggested that independent claim 1 is not obvious over Laird or Auty, alone or in combination. Dependent claim 2, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional

recitations it contains. Reconsideration and withdrawal of the rejection of claim 2 are respectfully requested.

Regarding claim 7, Auty does not provide what Laird lacks. Auty teaches an object monitoring system including a camera to monitor moving objects and image processing circuitry to detect a predetermined moving object from other moving and static objects in the video. Auty does not teach or suggest means for sensing and collecting serial digital communication messages between the subsystems as serial data or means for indexing and storing serial data.

Therefore, it is respectfully suggested that independent claim 7 is not obvious over Laird or Auty, alone or in combination. Dependent claim 8, being dependent upon and further limiting independent claim 7, should also be allowable for that reason, as well as for the additional recitations it contains. Reconsideration and withdrawal of the rejection of claim 8 are respectfully requested.

To further prosecution of the present application, the Applicant is also presenting arguments that new independent claim 15 is not obvious over Laird *et al.* in view of Auty *et al.*

Regarding claim 15, Auty does not provide what Laird lacks. Auty teaches an object monitoring system including a camera to monitor moving objects and image processing circuitry to detect a predetermined moving object from other moving and static objects in the video. Auty does not teach or suggest sensing and collecting serial digital communication messages between subsystems as serial data.

Therefore, it is respectfully suggested that independent claim 15 is not obvious over Laird or Auty, alone or in combination. Dependent claims 16-19, being dependent upon and further limiting independent claim 15, should also be allowable for that reason, as well as for the additional recitations they contain.

Conclusion

Applicant believes the claims, as amended, are patentable over the prior art, and that this case is now in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with

Applicant's agent would advance the prosecution of the case to finality, she is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

Respectfully Submitted:
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